

Internationalisation of publicly traded family firms: a transaction cost theory perspective and longitudinal analysis*

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Abstract:

There has been a prominent stream of research investigating internationalisation of organisations. While the importance of transaction costs in the governance decisions of firms has been well established in the literature, transaction cost theory (TCT) in family firms remains underutilised. We examine the impact of family governance (i.e. family ownership and involvement in management and the board of directors) on internationalisation within the domain of TCT using 386 S&P 500 firms. Our findings indicate an inverted U-shaped relationship between family ownership and internationalisation and a U-shaped relationship between family's involvement in management and the board and internationalisation. This illustrates the interesting differential impact of the components of family involvement on internationalisation. We conclude by discussing future research and implications for practice.

Keywords: family firms | family management | family ownership | internationalization | transaction cost theory

Article:

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1. Introduction

Even though family firms form a major portion of national economies throughout the world (Dyer and Handler, 1994), the primary focus of internationalisation research has been on non-family firms (except for, Arregle et al., 2012; Calabrò and Mussolino, 2013; Graves and Thomas, 2003, 2006, 2008; Liang, Wang and Cui, 2014; Mitter et al., 2014; Tsang, 2001; Sciascia et al., 2012, 2013; Zahra, 2003). Additionally, many of the challenges family firms face regarding internationalisation and other strategic choices remain unclear from a theoretical and practical perspective (Dyer, 2003; Hoy and Verser, 1994).

Family business researchers recently investigate the link between family's involvement in businesses and internationalisation. Sciascia et al. (2013) show a non-linear J-shaped relationship between family involvement on the board of directors and sales internationalisation in the USA. In Austria, Mitter et al. (2014) find an inverted U-shaped relationship between family influence and internationalisation. A study by Calabrò and Mussolino (2013) demonstrates positive effects of board independence and relational norms and trust on family firms' export intensity in Norway. In China, Liang, Wang and Cui (2014) show an inverted U-shaped relationship between family management and internationalisation and a U-shaped relationship between family ownership and internationalisation. A recent review by Pukall and Calabrò (2014) draws attention to mixed findings regarding family influence on internationalisation in family firms and calls for more studies investigating how different governance structures influence family firms' internationalisation.

Chua, Chrisman and Sharma (1999, p.25) define a family business as “a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families”. Consistent with this definition, family firms are identified by family ownership and family involvement in governance and management (Chrisman, Chua and Litz, 2003). In addition to these components, the ‘essence’ of the family firm derives from the intentions to maintain current and transgenerational family control, family firm-specific resources and capabilities, a vision for value creation, and pursuance of that vision (Chrisman, Chua and Litz, 2003). Unique to family firms, the identification with and emotional attachment of family members to the firm, family control, social ties, and transgenerational renewal through succession generate socioemotional wealth (Berrone, Cruz and Gomez-Mejia, 2012). Thus, family influence is the key factor that distinguishes among family firms as well as between family firms and non-family firms.

According to Kontinen and Ojala (2010), some studies investigating family firms' internationalisation lack theoretical grounding and the studies that have been done focus primarily on firms in the manufacturing sector. Moreover, those authors also draw attention to the need for longitudinal research on larger firms as well as consideration of various levels of family ownership and family management. Strategic decisions that determine internationalisation appear to be of particular importance to the performance and long-term success of family firms, yet we still do not know enough about the determinants of such decisions in the family business literature. Therefore, distinctive factors affecting strategic decisions, specifically concerning

the internationalization activities and the idiosyncratic conditions influencing such decisions in family firms deserve more research attention.

In an attempt to fill this gap in the literature, this empirical paper addresses two important research questions regarding internationalisation in family firms:

1. How does family ownership impact internationalisation?
2. How does family's involvement in management and the board of directors impact internationalisation?

Unlike small- and medium-sized family firms where ownership and management are usually overlapping (Carney, 2005), our focus on publicly traded family firms requires that we distinguish between active family control (i.e. family involvement in management and the board) and passive family control (i.e. family ownership) (Maury, 2006). We use the transaction cost theory (TCT) concepts of human asset specificity, opportunism versus trust, and risk aversion to explain how family's involvement in publicly traded family firms through ownership and participation in management and the board of directors influences internationalisation. We develop and test our model on 386 firms in the S&P 500 through panel data analyses.

This paper contributes to the family firm literature in several ways. First, the use of TCT to understand the internationalisation of family firms helps to illustrate how the distinctive transaction cost factors in family firms affect their strategic decisions. This adds to our knowledge about family firms and emphasises the utility of TCT applications (Gedajlovic and Carney, 2010; Memili, Chrisman and Chua, 2011a; Memili, Chrisman, Chua, Chang and Kellermanns, 2011b; Verbeke and Kano, 2010). Second, we contribute to a better understanding of the differences among family firms, specifically based on different levels of family ownership and family's involvement in management and/or the board that are likely to have a material impact on decision-making and internationalisation. Third, rather than following a simplistic approach by investigating whether family firms internationalise more or less than non-family firms, we illustrate that the impact of family's involvement on internationalisation is a complex one with differential non-linear effects of family ownership and management/board involvement. In summary, we contribute to the literature by providing a TCT perspective into the emerging theory of the family firm (Chrisman, Chua and Litz, 2004; Chrisman Chua and Sharma, 2005; Chua, Chrisman and Sharma 1999).

2. Theoretical overview

The concern of earlier internationalisation studies was on distinguishing among the phases or stages of the internationalisation processes (e.g., Bilkey and Tesar, 1977; Cavusgil, 1980; Johanson and Vahlne, 1977, 1990; Reid, 1981; Rogers, 1962). A review by Cuervo-Cazurra and Ramo (2004) indicates that Johanson and Vahlne's (1977, 1990) incremental model of internationalisation is commonly referred to as the stage-based model. Other approaches to modelling internationalisation include the life cycle model (Vernon, 1966), innovation-related model (Bilkey and Tesar, 1977; Cavusgil, 1980), the structural model (Bartlett and Ghoshal, 1989), the internalisation model (Buckley and Casson, 1976), and the FDI-based model (Chang, 1995). Building on this, research started to draw attention to the importance of networks in internationalisation (Forsgren, 1989; Johanson and Vahlne, 1993). Then, strategic choices and

actions, the role of founders, and the relationship between founders and internationalisation became important in internationalisation research (Madsen and Servais, 1997; McDougall, Shane and Oviatt, 1994). This led to studies examining the antecedents of internationalisation such as factor conditions (Heckscher and Ohlin, 1991), industry and competitive structures (Nordstrom, 1991; Porter, 1990), market imperfections and transaction costs (Dunning, 1988; Madhok, 1997; Teece, 1986), ownership structure (Lindqvist, 1991), and managerial experience and decision-making (Lindqvist, 1991; Oviatt and McDougall, 1997; Zucchella, Palamara and Denicolai, 2007).

Contemporary internationalisation studies have started to highlight the differences between family and non-family firms and investigate the rationale and drivers of internationalisation in family firms. Earlier studies generally show that family firms are less likely to internationalise than non-family firms owing to weak information and control systems, inward orientation, difficulties or reluctance in hiring external managerial talent, and fear of the loss of power and control (Donckels and Fröhlich, 1991; Gallo and Sveen, 1991; Gallo and Pont, 1996; Harris, Martinez and Ward, 1994). Recent studies show similar results (Cerrato and Piva, 2012; Fernández and Nieto, 2005; Graves and Thomas, 2003, 2006, 2008).

Studies also highlight contingencies, such as firm size, firm age, the existence of family-owned business partners or alliances in foreign countries, multigenerational family's involvement in the business, later generations' majority in management, investments in technology, long-term orientation, profitability and growth concerns, and founder/owner interests in internationalisation, that can all lead family firms to internationalise (Davis and Harveston, 2000; Fernández and Nieto, 2005; Gallo and Sveen, 1991; Gallo and Pont, 1996; Graves and Thomas, 2008; Zahra, 2003). Additionally, a recent study by Sciascia et al. (2012) using a sample of privately owned family firms in the USA indicates that family ownership has an inverted U-shaped relationship with internationalisation. A recent study by Arregle et al. (2012) using a sample of small- and medium-sized family firms in Sweden shows how non-family involvement in ownership and board can have an impact on family firms' export activities. Holt's (2012) commentary to this article explains how and under what conditions the family might be receptive to strategic initiatives concerning export activities. Sciascia et al. (2013) then examine the impact of family's involvement in the board of directors on internationalisation and find a J-shaped relationship among a sample of US family firms.

However, we still do not know enough about how family's involvement (i.e., family ownership and family's participation in management and the board) may differentially impact (Kontinen and Ojala, 2010; Sharma, 2004) family firms' internationalisation and the factors affecting family owners, managers, and board members' strategic decisions regarding internationalisation in large corporations. Unlike small-to-medium-sized family firms, where ownership and management are typically unified, we expect differential effects of family's ownership and involvement in management and the board on internationalisation. Indeed, recent research highlights that family firms are heterogeneous (Chrisman, Memili and Misra, 2014; De Massis et al., 2012; Sharma and Nordqvist, 2008; Westhead and Howorth, 2007). Theoretically, recognising the heterogeneity (e.g. SME versus large family firms) is important because comparisons of family and non-family firms that do not take differences such as size into account could lead to conceptual and empirical problems. Research is therefore needed to

explore how different levels of family's involvement in large family firms may affect internationalisation. Since transaction costs and cost efficiencies are key concerns in internationalisation (Dunning, 1988; Madhok, 1997; Teece, 1986), we explore the impact of family governance on internationalisation through the lens of TCT.

2.1 Transaction cost theory

Economising on transaction costs is the primary concern in TCT (Williamson, 1975, 1985). Transactions involve both ex ante contracting costs associated with the drafting, negotiating, and safeguarding of an agreement and ex post contracting costs that are related to disagreements and conflicts that arise from contract incompleteness, and set-up, operating, and bonding costs (Williamson, 1985). Within the framework of contracting, the partner with the bargaining power (Coff, 1999) is expected to have an advantage in negotiating agreements that minimise both its ex ante and ex post costs. Accordingly, "the organization of economic activity is under the control of those who possess power" (Williamson, 1985, p.124).

Williamson (1985) identifies asset specificity and behavioural uncertainty as the crucial factors affecting efficient boundaries of firms. Behavioural uncertainty involves bounded rationality and agent opportunism (Williamson, 1985). Bounded rationality suggests that individuals will behave 'intendedly rational, but only limitedly so' (Simon, 1961, p.24) because of imperfections in their mental capacity and the information available for processing. This basically means that firms are unable to maximise utilities (Simon, 1955) as neoclassical economic theorists claim (Savage, 1954), and 'contracts are normally incomplete' (Lafontaine and Slade, 2007, p.649). This inevitably leads to satisficing behaviour (Simon, 1959) to deter the potential, but unpredictable, opportunism (Williamson, 1985) of economic actors. Opportunism involves 'self-interest seeking with guile' (Williamson, 1985, p.47). Although bargaining in a transaction naturally involves the pursuit of self-interest, opportunism implies a certain amount of deception with regard to either the ability to fulfil the terms of the contract or willingness to put forth the required effort. Behavioural uncertainty and associated costs are common concerns in both TCT and agency theory. However, unlike agency theory's focus on preventing or mitigating such problems through monitoring and control, TCT is concerned with how such problems may affect efficient boundaries of firms (e.g. internationalisation) and economising on costs (Madhok, 1997; Teece, 1986; Williamson, 1985).

Another important concept in TCT is asset specificity. Asset specificity deals with the extent to which resources can be redeployed to other uses and entails site specificity, physical asset specificity, human asset specificity, and dedicated assets (Williamson, 1975, 1985). A fundamental premise of TCT is that high asset specificity leaves a firm vulnerable to opportunism owing to a paucity of opportunities to redeploy assets to other uses, which limit transaction alternatives (Williamson, 1981).

Within the domain of TCT, Teece (1986) directs attention to the distinctive governance properties of multinational enterprises. According to Teece (1986), firms either internalise transactions or internationalise based on the efficiency properties of each option. Teece (1986) also suggests that internationalisation usually takes place in response to high transaction costs associated with internalising transactions within the boundaries of the firm. Madhok (1997)

suggests that the main purpose of internationalisation is either to exploit an opportunity a firm already possesses, to strengthen an existing one, or to develop a new one.

TCT's main tenets such as trust, risk aversion, and human asset specificity intersect with family firms' concern with socioemotional wealth preservation involving family control, influence, bonding, social ties, emotional attachment, and identification with the firm. Additionally, TCT's emphasis on cost economising and efficient boundaries are relevant to families' personalistic, particularistic, and parsimonious tendencies (Carney, 2005). In the following sections, we use TCT to examine whether and how family ownership and family's involvement in the management and the board of directors of publicly traded firms influence internationalisation. By explaining how family's involvement influences the strategic decisions of family firms within the framework of TCT, we contribute to the advancement of the theory of the family firm (Chrisman, Chua and Sharma, 2005; Conner, 1991).

3. Hypotheses

Family firms are considered distinctive owing to family ownership, management, and board involvement as well as a family's intentions for the transgenerational sustainability of the firm (Chrisman, Chua and Sharma, 2005; Chrisman et al., 2012; Chua, Chrisman and Sharma 1999). Family's involvement is significant "when a family owns all or a controlling portion of the business and plays an active role in setting strategy and in operating the business on a day-to-day basis" (Kelly, Athanassiou and Crittenden, 2000, p.27). Control of ownership, management, and the board of directors are critical in determining a family's ability to influence an ongoing business (Sundaramurthy and Kreiner, 2008). Concentrated ownership by families in publicly traded firms tends to be common, despite legal restrictions on high levels of ownership (La Porta, Lopez-De-Silanes and Shleifer, 1999; Shleifer and Vishny, 1997; Villalonga and Amit, 2010).

Pertinent to our study, in USA, shares in most large firms are relatively diffused, such that even the largest shareholder holds a modest stake in the company (Gedajlovic and Shapiro, 1998). The US courts also intervene to ensure that shareholdings are dispersed (Morck and Steier, 2005). Furthermore, litigious shareholders and a well-developed corporate takeover mechanism can discipline or remove ineffective corporate insiders, including large shareholders (Morck and Steier, 2005). Families further sustain or enhance their power by using control enhancing mechanisms, which protect controlling shareholders and managers and create excess voting rights over their cash flow rights (Villalonga and Amit, 2006a, 2006b). For example, as of 1998, the Ford family owned only 6% of the shares of the Ford Motor Co., but 40% of the votes through utilising dual-class shares (Villalonga and Amit, 2006b). Family involvement and family intentions are expected to affect their vision and behaviour with regard to opportunity pursuance, resource acquisition and deployment, and performance.

Koironen (2003) draws attention to the combination of ownership, management, and family subsystems in forming a family business system. However, according to Schulze and Gedajlovic (2010), studies have not always distinguished between the different effects of family ownership and family's involvement in management and the board on firm strategies and behaviour. On the one hand, family owners may desire to govern their firms in certain idiosyncratic ways. On the

other hand, family's involvement in management and board can facilitate family owners' governing their firms in ways they desire. In some cases, family management may not always accompany family ownership. Indeed, some family owners may not be willing and/or able to be involved in management and prefer to play the role of an investor.

Accordingly, Maury (2006) distinguishes between active family control (i.e. family's involvement in management and the board) and passive family control (i.e. family ownership). However, it is uncommon for families to be involved in a firm's management or the board of directors without significant ownership. Maury shows that active family control is associated with higher profitability compared to non-family firms, whereas passive family control does not affect profitability. Andres (2008) demonstrates that in Germany, family firms may perform better than non-family firms only when the founding family is still active either on the executive or the supervisory board. Andres also shows that if families only act as large shareholders without board representation, their firms' performance does not differ from that of non-family firms. Westhead and Howorth (2006) also find that family management, rather than family ownership, is associated with performance in firms in the UK. Parallel to the above studies, in this paper, the differential impact of a family's involvement in management and the board is distinguished from the impact of family ownership.

3.1 Family ownership and internationalization

Zahra (2003) argues that family ownership significantly affects a firm's strategic choices, which may include internationalisation decisions and activities. Consistent with Zahra's (2003) argument, Carney (2005) indicates that ownership provides family members with the rights to control the use of a firm's assets. When decision-making is affected by family members, the ability and willingness to make idiosyncratic decisions primarily benefiting the family increase, while the cost of making and implementing decisions decreases (Habbershon and Williams, 1999; Zahra et al., 2008). As Zahra (2005) argues, ownership gives the family the discretionary power for the timely generation and implementation of strategic ideas. Hence, it is expected that internationalisation decisions will be influenced by the desires or wishes of family owners.

Within the framework of TCT, human assets are the critical determinant of asset specificity (Williamson, 1985) and, as will be discussed below, are particularly pertinent to the strategic decisions of family firms. Human asset specificity is defined by the degree to which job skills are specific to a particular firm and the ease of metering. Within the framework of TCT, human assets are the critical determinant of asset specificity (Williamson, 1985) and, as will be discussed below, are particularly pertinent to the strategic decisions of family firms. Human asset specificity is defined by the degree to which job skills are specific to a particular firm and the ease of metering individual productivity (Williamson, 1981). When job skills are highly transferable and metering is easy, employees can have mobility within the industry without loss of productivity or high replacements costs to the firms. Therefore, 'an internal spot market labour relation' (Williamson, 1981, p.565) exists and no special governance structure is necessary to maintain the relationship. On the other hand, when the value of human assets is based largely on tacit knowledge and experience and is very difficult to measure, clan organisation is an effective governance structure (Ouchi, 1980; Williamson, 1981). In a clan organisation, differences between individual and organisational goals are minimised. When individuals' and

organisations' goals are aligned, the possibility of opportunism decreases. The absence of complex contracts, explicit auditing, and assessments lower the transaction costs in clan organisations.

Family firms generally resemble clan organisations in that family bonds can align interests and reduce information asymmetries to lower governance costs (Lubatkin et al., 2005). Parental altruism links parent's welfare to that of their children, which can facilitate trust, communication, and reciprocity (Lubatkin et al., 2005; Stark, 1995). Altruism also makes the task of metering productivity more difficult owing to the introduction of non-economic goals into the firm (Chrisman, Chua and Sharma, 2005). When altruism is reciprocal between the family business owners and family business members, however, the problem of opportunism is at least partially mitigated (Chrisman, Chua and Sharma, 2005). Consequently, family firms are likely to foster work environments exemplified by greater employee care, loyalty, trust, motivation and efficient communication (Habbershon and Williams, 1999) when reciprocal altruism prevails.

On the other hand, when altruism is asymmetrical (Chrisman, Chua and Litz, 2004; Schulze et al., 2001; Schulze, Lubatkin and Dino 2002, 2003), family members may exhibit opportunistic behaviours, which owing to non-economic goals may be difficult to control (Habbershon and Williams, 1999; Memili et al., 2011a, 2011b). Nevertheless, research and theory suggest that opportunism will generally be lower in family firms than in non-family firms (Corbetta and Salvato, 2004; Chrisman, Chua and Litz, 2004).

"Ownership provides the right to use, modify and transform, and enjoy the returns from the asset creating scope to both reduce the costs as well as increase the benefits from an asset due to superior capabilities" (Madhok, 1996, p.581). In family firms, as compared to non-family firms, human asset specificity is expected to be higher owing to the involvement of the family in the business (Gersick et al., 1997), which allows superior control over firm-specific transactions (Carney, 2005; Memili et al., 2011a, 2011b).

Human asset specificity in firms has been measured by the amount of training (Lafontaine and Slade, 2007). Unlike in non-family firms, the human capital of family members in a family firm is developed through long apprenticeships and hands-on personalised experience that provide an opportunity to learn while doing (Le Breton-Miller and Miller, 2006; Le Breton-Miller, Miller and Steier, 2004). These highly specific human assets of family firms based on tacit knowledge and experience (Penrose, 1959; Sirmon and Hitt, 2003) are not easily transferable, replaceable, or measurable. This may make internationalisation, requiring new knowledge more difficult for family firms.

Williamson (1981) suggests that in cases of high asset specificity, both the buyer and the seller prefer exchanges that have the potential for stability and dependability. Close monitoring and control by family owners can improve the quality of products and services and build trust, goodwill (Sako, 1991), and reputation (Weigelt and Camerer, 1988) with customers with whom the family firm engages in repeated exchanges (Poppo and Zenger, 2002; Tagiuri and Davis, 1996; Ward and Aronoff, 1991). Indeed, family businesses seem to possess strong relationships with customers and other external stakeholders and good reputations consistent with the

emphasis on socioemotional wealth and use of trust to minimise transaction costs (Aronoff and Ward, 1995; Dick and Basu, 1994; Habbershon and Williams, 1999; Lyman, 1991).

In the USA, although blockholdership is limited in publicly traded firms by law, family owners can still exert influence on firm strategy and behaviour (Anderson and Reeb, 2003b; Villalonga and Amit, 2006a, 2006b). At low-to-moderate levels of family ownership, firm strategies and behaviours may resemble those of a non-family firm and economic goals may be more important (Chrisman et al., 2012). In such cases, family firms may place higher priority on economising and increasing efficiencies through internationalisation (Sirmon and Hitt, 2003). Those focussing on economic goals are expected to make even greater efforts to improve quality, lower fixed and variable costs, and increase flexibility (Memili, Chrisman and Chua, 2011; Memili et al., 2011). Since internationalisation can help attain these economic goals, family firms that value economic goals more may focus on the reduction of production costs more than transaction costs or loss of non-economic benefits (Memili, Chrisman and Chua, 2011; Memili et al., 2011). Furthermore, family firms tend to be parsimonious in the use of assets (Carney, 2005). As a result, cost minimisation goals and parsimonious tendencies of firms with low-to-moderate levels of family ownership will increase their likelihood of internationalising. The internationalisation level is expected to reach its highest point at moderate levels of family ownership.

At higher levels of family ownership, with family's wealth at stake, family firms are more likely to keep critical operations in the hands of family members to best exploit the specific human assets they possess. Therefore, they may not be willing to internationalise as much as they do at low-to-moderate levels of family ownership since this may require external staff and expertise (Gómez-Mejía, Makri and Kintana, 2010), which may leave the family firm vulnerable to the threat of opportunism.

Moreover, difficulties of monitoring international activities (Alchian and Demsetz, 1972; Poppo and Zenger, 2002; Williamson, 1985) can increase the threat of opportunism, which might negatively affect product or service quality and put the family firm's reputation in danger. Maintaining a positive reputation is a valuable intangible asset that can lead to competitive advantages that outweigh contractually promised short-term cost efficiencies that are vulnerable to uncertainties (Leiblein and Miller, 2003).

Family business owners' integrity and self-worth are tied to the family firm's reputation (Dutton, Dukerich and Harquail, 1994; Smidts et al., 2001), particularly when the firm is more visible in the eyes of public through higher levels of ownership. Therefore, family business owners may forego the potential benefits of internationalisation when family ownership is at higher levels. Accordingly, a recent study by Chrisman et al. (2012) shows that as family ownership increases, the tendency to hold family-centred non-economic goals increases because property rights bestow increased legitimacy and power (Chrisman et al., 2012). Indeed, family firms can avoid or limit agent's opportunism and information asymmetries by using more human capital from the family since trust serves as a governance mechanism and a source of competitive advantage, lowering transaction costs substantially (Dyer and Handler, 1994; Memili et al., 2011a; Ouchi, 1980; Sirmon and Hitt, 2003; Steier, 2001).

Furthermore, the particularistic tendencies of the owning family may lead them to prefer close and special relations with kin and other trusted partners (Carney, 2005), which may limit the hiring and retention of local and foreign staff, and establishing partnerships and alliances necessary to internationalise. Gómez-Mejia, Makri and Kintana (2010) find that family firms have strong ties in their local communities, while lacking connections globally, which may consequently limit their internationalisation. Therefore, family firms with high levels of family ownership may refrain from internationalisation.

Higher levels of family ownership have been associated with risk aversion and greater reliance on internal human and financial resources (Gómez-Mejia, Makri and Kintana, 2010; Koiranen, 2002; Schulze, Lubatkin and Dino, 2002) owing to undiversified wealth and higher levels of risk-bearing. Indeed, research has shown that family business owners are more prone to be risk-averse (Gomez-Mejia, Nunez-Nikel and Gutierrez, 2001; Romano, Tanewski and Smyrnios, 2001; Schulze et al., 2001) in strategic decision-making. Given this propensity, family firms are more likely to be conservative and risk-averse in strategic decisions (Memili, Chrisman and Chua, 2011; Ward, 1997) such as internationalisation, which may require more external funding than domestic expansion. The degree to which a family firm is risk-averse will exacerbate the influence of asset specificity and opportunism on internationalisation because at every level of asset specificity or possible opportunism, the associated risk of internationalising will be less acceptable (Memili et al., 2011a).

Although economic goals may be held more at low-to-moderate levels of family ownership, non-economic goals may prevail over economic goals at moderate-to-high levels of family ownership (Chrisman et al., 2012). Accordingly, research and theory suggest that family firm strategies and behaviour are influenced by the family's desire to preserve socioemotional value through the transgenerational control of the firm (Gomez-Mejia et al., 2007, 2011; Chua, Chrisman and Sharma, 1999) and by the discretion to make idiosyncratic decisions owing to the family's involvement in the business through ownership (Carney, 2005). Hence, family business owners may wish to pursue family-centred non-economic goals even at the expense of economic goals and are able to do so because they own a large portion of the firm. Chrisman et al. (2012) suggest that the family firm's propensity to hold non-economic goals increases when family ownership increases. Indeed, higher levels of family ownership empower the family as the ultimate authority and allow the family to reflect its vision onto the business (Carney, 2005). In the case of limited accountability to third parties rooted in the personalisation of authority through higher levels of ownership, the owning family has the liberty to pursue family agendas involving non-economic goals without internal or external constraints (Carney, 2005). Therefore, the family business owners' concern for non-economic goals placing a great emphasis on the family may limit the value placed on investments, such as internationalisation.

Indeed, when there is more emphasis on non-economic goals, family firms may be less concerned with lowering transaction costs and more willing to forego efficiency opportunities that could be captured by internationalisation (Sharma and Irving, 2005). Accordingly, family firms are expected to have greater difficulty in shedding resources and business activities than non-family firms (Sharma and Manikutty, 2005). This may limit the scope of their activities and cause them to refrain from undertaking risky business projects such as internationalisation (Morck and Yeung, 2003). Even though internationalisation might have the potential for

transaction cost-efficiencies (e.g., through economies of scale), family firms may be willing to accept lower profits in order to reduce risk and preserve socioemotional wealth (Gómez-Mejia, Makri and Kintana, 2010; Gomez-Mejia et al. 2007, 2011).

In addition, family wealth is closely tied to the family firm's welfare (Anderson and Reeb, 2003a). At moderate-to-high levels of family ownership, owing to the family's wealth at stake (Anderson and Reeb, 2003a), the family business owners tend to make strategic decisions, including internationalisation, carefully and parsimoniously (Carney, 2005; Gómez-Mejia, Makri and Kintana, 2010; Habbershon and Williams, 1999), which can restrict or prevent such activities. Indeed, owner entrenchment through higher equity levels can trigger inertia and attachment to the status quo. Accordingly, Chen and Hsu (2009) find a negative association between family ownership and R&D investment. The authors also show that R&D investment in family firms may increase when the roles of CEO and Board Chair are separated or when more independent outsiders are involved in the board. Also, Short et al. (2009) suggest that family firms may exhibit less autonomy, proactiveness, and risk-taking propensities. Hence, family business owners with moderate-to-high levels of equity may be less willing to risk the firm competencies by engaging in internationalisation where the firm may not be proficient, even when there is the potential for higher profits. Hence:

Hypothesis 1: Family ownership will have an inverted U-shaped relationship with internationalisation in publicly traded family firms.

3.2 Family's involvement in management and the board and internationalization

Active family control is manifested through family's involvement in management and the board (Maury, 2006). By being involved in management and the board, family members can have a greater influence on firm strategies and behaviour as compared to when family members are only involved in ownership as passive investors. As noted above, the threat of opportunism among family managers and board members is considered lower than the threat of opportunism among non-related managers, external board members, or business partners.

Trust within the family and towards selected business partners is a self-reinforcing social control mechanism substituting for complex contracts and lowering transaction costs of finding exchange partners, negotiating, and monitoring the execution of projects (Gulati, 1995). Even a few family members involved in top management, the board can ensure the family's influence in corporate governance (Villalonga and Amit, 2006a, 2006b). At lower levels of family's involvement in management and the board, family managers and board members may be focussing more on enhancing control over the business and may be more risk-averse. In that case, internationalisation can impose the threat of opportunism as close monitoring and control will be more difficult when only a small number of family managers and board members are at the helm. Therefore, up to a certain level of family involvement, family managers and board members are expected to prefer to minimise internationalisation activities in order to contain risk.

However, at moderate-to-high levels of family involvement, family managers and family board members may have less concern regarding the loss of control and the potential opportunism of

external parties since they have greater ability to monitor and enforce strategic preferences through their managerial and board positions. This can enable family managers and board members to formulate and implement aggressive business strategies with potentially high returns, including internationalisation. Furthermore, at moderate-to-high levels of family's involvement, family managers and board members are more visible to the public compared to family owners who may be passive. In such situations, internationalisation can lead to reputational benefits, which is of particular importance to families (Dyer and Whetten, 2006). Hence, family firm leaders tend to make a concerted effort to build a positive image and reputation for the firm, which can set the stage for and facilitate internationalisation activities.

Family members' pride derived from a positive reputation of themselves and their firm facilitates their willingness to engage in mutual monitoring (Sundaramurthy and Kreiner, 2008), mitigating opportunism in family firms. Close monitoring and control by family managers and board members also elevate the quality of activities and help build goodwill and trust with stakeholders (Poppo and Zenger, 2002; Sako, 1991; Tagiuri and Davis, 1996; Ward and Aronoff, 1991; Weigelt and Camerer, 1988). Indeed, family businesses seem to develop and sustain strong relationships with internal and external stakeholders (Aronoff and Ward, 1995; Dick and Basu, 1994; Habbershon and Williams, 1999; Lyman, 1991) that help to establish a strong positive image and encourage investments in growth-oriented initiatives, such as internationalisation.

Moreover, the longer time horizon derived from an intention for continuing family control of the firm can help its leaders avoid managerial myopia (James, 1999; Upton, Teal and Felan, 2001) and direct efforts towards maintaining trust and enduring relationships with stakeholders (Zahra, 2005). For example, close monitoring and control by family managers and board members with a long-term perspective can lead to a higher priority being given to the quality of all business activities, which can facilitate successful internationalisation. The long-term orientation that occurs when the firm is viewed as a legacy for future generations also increases the value of developing strong relationships built on goodwill and trust with stakeholders. Indeed, family managers and board members that make business decisions based on a long-term commitment to both the family and the firm seem to develop stronger reputations with internal and external stakeholders based on the family name (Aronoff and Ward, 1995; Dick and Basu, 1994; Habbershon and Williams, 1999; Lyman, 1991). Since successful internationalisation can improve the firm's reputation and relationships with stakeholders, family managers and board members, whose self-esteem and self-worth are tied to the family's continuing control of the business (Dutton, Dukerich and Harquail, 1994; Smidts et al., 2001), may be more motivated to ensure that the firm implements and succeeds at internationalisation.

Long-term orientation generates enduring relationships with key stakeholders by demonstrating to them that they are here for the long haul and committed to serve their long-term needs (Aronoff and Ward, 1995; Dick and Basu, 1994; Habbershon and Williams, 1999; Lyman, 1991). Accordingly, fast-growing, high-performing family firms have been found to develop long-term goals and strategies (Upton, Teal and Felan, 2001) and emphasise long-term financial performance. As a result, long-term investments in internationalisation can promote the success of family firms across generations (Zahra, Hayton and Salvato, 2004) by encouraging family firm leaders to focus on building customer trust and loyalty and protect their family name and the positive image of their firm in the stakeholders' eyes (Dyer and Whetten, 2006). Hence:

Hypothesis 2: Family management will have a U-shaped relationship with internationalisation in publicly traded family firms.

4. Data and methodology

A panel design was used for this study. Data from the Thompson One Corporate Development, Hoover's, and Mergent Online databases were analysed on a restricted sample of firms based on publicly available data for the lag years 2002, 2004, and 2006 regarding ownership, management, and control variables and the years 2003, 2005 and 2007 regarding the dependent variable (i.e. internationalisation). Consistent with previous studies investigating publicly traded family firms, the sample came from firms listed in the S&P 500 (e.g. Anderson and Reeb, 2003a, 2003b, 2004; Short et al., 2009). Missing data lowered the sample size to 386. The S&P 500 stock market index is maintained by Standard & Poor's and involves 500 large-cap firms, covering about 75% of the US equity market. Anderson and Reeb (2003a) suggest that families are present in one-third of the S&P 500. However, unlike privately held family firms, those in the S&P 500 are likely to have substantial numbers of non-family shareholders. Hence, this sample may not be representative of small- and medium-sized firms or privately held firms.

4.1 Variables

4.1.1 Dependent variable

Internationalisation (INT) was measured as the percentage of foreign revenue to total revenue (Ruigrok and Wagner, 2003). Data on internationalisation were obtained from the Thompson One Corporate Development database for 2003, 2005 and 2007. Average annual total revenue of the firms in our sample is approximately US \$12 billion, ranging between US \$0.06 billion and US \$166.09 billion. Of this amount, 35% of total revenue is from foreign sales with a range of 0–83% of total revenue.

4.1.2 Independent variables

Family ownership (FO) is the percentage of total firm ownership held by members of a family (Chrisman et al., 2012). Average family ownership is about 1.69%, ranging between 0% and 48%. *Family's involvement in management and the board (FM)* is the number of individual family members, who are in top management and/or the board of directors. Family members participating in both management and board are only counted once. The consideration of both the family's participation in management as well as the board is done to distinguish between active (i.e., family holds at least one of the top management and/or board position) and passive family control (Andres, 2008; Astrachan et al., 2002; Handler, 1989; Maury, 2006; Zahra, 2003). For non-family firms, both family ownership and family management and board membership values are zero. The squared family ownership (FO2) and the squared family management (FM2) variables were used to capture potential non-linear relationships between the independent variables and dependent variables. For robustness tests, the proportion of family members in management and/or the board of directors (PFM) to the total number of managers and board of directors was also calculated. Data for the years 2002, 2004 and 2006 were collected from the

Thompson One Corporate Development, Hoover's, and Mergent Online databases for these variables.

4.1.3 Control variables

Variables that were expected to influence internationalisation were included as controls. Data from Thompson One Corporate Development for the years 2002, 2004 and 2006 were collected for these variables. Larger companies may have internationalisation advantages over small- and medium-sized firms owing to economies of scale. Hence, *firm size (FS)* was controlled and measured through the log of the number of employees (Chrisman et al., 2012). In our sample, the firms' average number of full-time and part-time employees is 36,000, ranging between 336 and 418,000 employees in any given year. In addition, older firms may have the advantage of a history of past successes, which can influence their internationalisation. *Firm age (FA)* was measured as the number of years the firm has been in existence since founding. Additionally, family firms may have competitive advantages in some industries compared to others (Chrisman et al., 2010; Pollak, 1985), which can influence internationalisation (Buckley and Casson, 1976; Sciascia et al., 2012; Zahra, 2003). The firms in our sample have been in business for about 60 years with a large standard deviation of 45 years. The range is between 2 and 211 years. *Primary firm industry (FI)* was measured by classifying all firms into one of four industrial categories:

- 1 retail
- 2 service
- 3 manufacturing
- 4 others, following Chrisman et al. (2010).

Three categorical variables, coded 1–0, were created to indicate retail, service, and manufacturing firms. Firms in other industries were coded as zero for each variable. A total of 38 firms are in retail, 105 are in service, 151 are in manufacturing, and 92 are in other categories.

Additionally, *generational majority in management and the board* was controlled since family influence tends to be weaker when it is more dispersed or fractionalised owing to the involvement of later generations (Schulze, Lubatkin and Dino, 2003; Gomez-Mejia et al., 2007). Two categorical variables, coded 1–0, were created to indicate whether first-generation (GEN1) or second-generation or later (GEN2) family members were in majority in the firm's management and the board of directors. Non-family firms were those coded as zero for each of these two variables. In total, 77 of the firms listed are family firms in our sample.

Institutional owners such as mutual or pension funds may also play a significant role in corporate decision-making (Anderson and Reeb, 2004), including internationalisation. *Institutional ownership (IO)* is the percentage of overall institutional ownership of voting shares outstanding. Similarly, ownership by other insiders can also influence decision-making (Anderson and Reeb, 2004) and internationalisation. Hence, *other insiders' ownership (OIO)*, which is the equity holdings of top managers and directors minus family managers and directors' ownership, was controlled to capture the incentive effects of ownership by other insiders (Anderson and Reeb, 2004).

Firm risk (Anderson and Reeb, 2003a, 2004) may be another factor that can influence internationalisation since firms with high levels of risk may eschew investments that influence risk-bearing. *Firm risk (FR)* was measured as the standard deviation of stock returns for the previous 60 months, following Anderson and Reeb (2003a, 2004).

Investment in R&D may also be related to internationalisation. As R&D intensity can lead to innovation and growth, it can influence both foreign revenue and total revenue, depending on the type of innovation that occurs. Hence, this variable was controlled. *R&D intensity* was included as a control using the R&D-to-sales ratio (Memili, Fang and Welsh, 2015; Miller et al., 2007).

4.2 Analyses

Table 1 provides variable means, standard deviations, and Table 2 presents the results of the fixed effects Tobit models, with internationalisation as the dependent variable. Hypotheses 1 and 2 were tested through Tobit panel data analysis for lag years which are 2003, 2005 and 2007 for the dependent variable and 2002, 2004 and 2006 for the controls and independent variables. Panel data analysis allows stronger causal inference and increased statistical power over cross-sectional design. NLOGIT version 4.0 Econometric software was used. The fixed effects Tobit estimation model was selected to control for omitted variables that differ between cases but are constant over time. Tobit fixed effects estimation was used to adjust for the large number of zero observations (Maddala, 1991). Using OLS with censored or truncated data can produce biased estimates due to omitted variable problem. Maximum likelihood estimator (MLE) produces an efficient and consistent estimator to control stated issues. Hence, Tobit fixed effects estimation is an MLE appropriate technique for the data set we have used in this paper (Long, 1997; McDonald and Moffitt, 1980). Prior to running the analyses, the normality of the distributions of the variables was examined by graphing the distributions and examining the skewness and kurtosis. The variables which were not normally distributed were transformed (e.g. log of firm size). Additionally, variance inflation factors for the variables were calculated. VIFs range between 1.10 and 3.24. Collinearity was not a problem since all VIFs were less than 10.

Table 1 Descriptives and correlations (continued)

	<i>M</i>	<i>Standard deviation</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Other insiders' ownership	3.97	6.97	-0.07	-0.13	0.13	0.02	-0.02	-0.08	-0.02	-0.15	-0.18	1								
Firm risk	43.84	46.59	0.03	-0.10	0.01	-0.02	0.06	-0.05	0.15	-0.26	-0.24	0.19	1							
Family ownership	1.69	6.21	0.34	0.45	0.06	0.07	-0.05	-0.07	-0.21	-0.02	-0.00	-0.01	-0.04	1						
Family ownership squared	41.43	213.34	0.29	0.29	0.03	0.09	-0.05	-0.05	-0.20	-0.02	0.00	-0.08	-0.02	0.93	1					
Family management	0.39	0.95	0.36	0.69	0.13	-0.03	-0.04	0.00	-0.12	0.01	0.00	-0.14	-0.06	0.61	0.45	1				
Family management squared	1.06	3.55	0.19	0.56	0.14	-0.04	-0.04	-0.00	-0.01	0.02	0.01	-0.10	-0.05	0.49	0.36	0.92	1			
Firm performance	1.80	3.82	-0.01	0.09	0.01	-0.03	-0.11	-0.10	-0.05	-0.03	-0.06	0.06	0.05	-0.03	-0.03	0.09	0.06	1		
Research and development	0.03	0.06	-0.02	-0.11	-0.13	-0.16	0.40	-0.19	0.18	-0.21	-0.26	0.12	0.33	-0.10	-0.07	-0.12	-0.10	0.09	1	
Internationalisation	34.01	22.28	0.03	-0.02	-0.16	-0.06	0.25	-0.15	0.13	-0.03	-0.00	-0.05	0.14	-0.02	-0.02	-0.04	-0.04	0.03	0.28	1

Table 2 Tobit fixed effects panel data analysis results

<i>Dependent variable: internationalisation (2003, 2005 and 2007)</i>	<i>Model 1</i>	<i>Model 2</i>
<i>Control variables (2002, 2004 and 2006)</i>		
Retail industry	7.88*	5.75
Service industry	11.11***	9.44***
Manufacturing industry	15.40***	14.87***
Institutional ownership	-0.08	0.01
Firms age	0.08**	0.09***
Log of firm size	-1.12	-0.71
Other insiders' ownership	-0.10	-0.12
Research and development	87.17***	82.05***
Firm risk	0.03*	0.03*
First generation's majority in management and board	13.60**	18.63***
Second or later generation's majority in management and board	-9.77***	4.77
<i>Independent variables (2002, 2004 and 2006)</i>		
Family ownership		1.27***
Family ownership squared		-0.02*
Family management		-13.24**
Family management squared		2.06**
Log likelihood function	-2,246.04	-2,232.91

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.001$.

Note: $N = 386$

In the panel data analyses, Model 1 was the base model where the control variables were entered. Manufacturing and service industries, firm age, R&D, first generation's majority in board and management, second or later generation's majority in board and management, and firm risk were significant and retail industry was marginally significant. The log likelihood function was -2,246.04. In Model 2, the independent variables were entered. In support of Hypothesis 1, the family ownership (FO) variable was positive and significant ($\beta = 1.27$, $p < 0.001$) and the square of family ownership (FOS) was negative and significant ($\beta = -0.02$, $p < 0.05$).

Family's involvement in management and the board (FM) was negative and significant ($\beta = -13.24$, $p < 0.001$) and family's involvement in management and the board squared (FMS) was positive and significant ($\beta = 2.06$, $p < 0.05$). The log likelihood function for the second model was -2,232.91. Hence, Hypothesis 2 is also supported.

4.3 Robustness tests

The results were compared to the pooled model through OLS regression. The results of OLS were consistent with the Tobit panel data analyses. A robustness test using the proportion of

family managers and/or the board of directors (PFM) as an independent variable also yields results consistent with our primary analysis.

To test for endogeneity, instrumental variables for both family ownership and family's involvement in management and the board were used. Since this is Tobit panel data, the Wald test was performed for both of these cases to test for exogeneity using Stata 11 software. Concerning the endogeneity of family ownership, GEN1 and GEN2 instrumental variables were used. For family's involvement in management and board variable, the instrumental variables were again GEN1 and GEN2. The Wald test results indicated that the instrumental variables for family ownership were significant ($\chi^2 = 15.02, p = 0.0001$) and we found similar results for family's involvement in management and the board ($\chi^2 = 8.92, p = 0.0028$). Hence, the results of Wald test showed that family ownership and family's involvement in management and the board variables can be considered as exogenous.

5. Discussion

In this paper, we attempt to provide some initial answers to two important research questions:

1. How does family ownership impact family firms' internationalisation?
2. How does family's involvement in management and board impact family firms' internationalisation?

Therefore, we explore the differential impact of family ownership and family's involvement in management and the board on internationalisation in publicly traded family firms. This is particularly important in publicly traded family firms, where family ownership and family's involvement in management and the board are expected to be relatively less than those in small-to-medium-sized family firms. Our findings show that family ownership has an inverted U-shaped relationship with internationalisation. Thus, internationalisation increases as family ownership increases up to an optimum level. After an optimum level, family ownership affects internationalisation negatively. Within the domain of TCT, this may be owing to increased family human asset specificity, risk aversion because of risk-bearing, and concerns for external parties' potential opportunism at higher levels of family ownership. As we also expected, family's involvement in management and board has a U-shaped relationship with internationalisation. Family's involvement in management and the board affects internationalisation positively at low and high levels and negatively at moderate levels. At low levels, family firms behave similar to non-family firms and engage in more internationalisation. As family's involvement in management and the board increase, internationalisation begins to fall off. However, higher levels of family's involvement in management and the board can lead to higher risk-taking, which can facilitate internationalisation. Additionally, the concerns for opportunism can be mitigated by the ability of larger numbers of family managers and board members to closely monitor and control the behaviour of external parties. The findings are consistent with Maury's (2006) distinction between active and passive family controls.

We contribute to the literature in several ways. First, this paper is one of the first attempts to use TCT to explain the impact of family governance through ownership and involvement in management and the board on internationalisation. Not only does this add to our understanding

of family firms and provide avenues for future research, it also suggests the value of applying TCT perspective to family business studies. As suggested by Memili et al. (2011a, 2011b), TCT elements (i.e., human asset specificity, opportunism versus trust, and risk preferences) can be critical in determining the efficient boundaries of publicly traded family firms. Second, we contribute to the family business literature by investigating the determinants of internationalisation. The family governance components of ownership, management, and board membership have differential effects on family firms' internationalisation. Since governance structure appears to have an important influence on firm strategies and behaviour, more research on the impact of different corporate governance structures on internationalisation is needed within the domain of international entrepreneurship and corporate governance.

5.1 Future research directions

Since family firms are heterogeneous (Melin and Nordqvist, 2007), the impact of transaction cost factors might vary in family firms depending upon life cycle stages or the imminence of succession. All these factors suggest additional applications of TCT to the study of family businesses.

Furthermore, the sample included 386 S&P 500 firms headquartered in the USA. Even though increased globalisation has tended to cause the business conduct of firms in different parts of the world to become more similar, different regulatory contexts can still result in differences in internationalisation. For instance, the USA exhibits a strong legal system that places limits on the dominance of owners and managers. We expect that family owners, managers, and board members may therefore have more influence on the strategies and behaviours of publicly traded firms in other countries. Since the regulatory context tend to vary across countries and may be influential to the findings of this study, future research could test or extend the model in countries with different corporate governance and foreign trade policies.

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In this paper, the links between the 'components-of-involvement' (i.e. family ownership and family's involvement in management and the board) and internationalisation are examined. However, according to the 'essence' approach in defining family firms, the intentions, vision, familiness, and/or behaviours may be the distinctive factors distinguishing between family firms and non-family firms as well as among family firms (Chrisman, Chua and Sharma, 2005). Since the elements of the essence approach are expected to lead to differences in corporate governance systems in family firms, the link between family owners and/or managers intentions, vision, familiness, and/or behaviours (e.g. intentions for transgenerational succession and the intentions

to preserve socioemotional wealth) and internationalisation should be investigated in future research. Future research can also investigate the influence of family owners, managers, and directors more minutely. For example, there may be other family firm-specific factors such as whether a family member is the CEO or Board Chair (Zahra, 2003) as well as whether the founder remains involved in ownership, management, and the board (Miller et al., 2007). Further, there are many other family involvement considerations that might influence internationalisation decisions because they may, among other things, affect the ability to reach consensus on decision-making and the importance attached to socioemotional wealth. These considerations include the number of generations included among owners, managers, and/or board members (Anderson and Reeb, 2004); the relationships between family and non-family members on the management team and board of directors; gender and ethnic background of the family members in charge; the relative ownership held by family members who are also managers and board members versus those who are not; and the types of relationships that exist between family managers and board members (e.g. spouses, siblings, offspring, in-laws, cousins).

Furthermore, the effects of family involvement on internationalisation might vary in family firms depending upon top management team characteristics, board independence (Klein, Shapiro and Young, 2005), leadership styles of family managers and directors (Bass, 1990), social capital (Sirmon and Hitt, 2003), corporate governance provisions (Gompers, Ishii and Metrick, 2003; Memili, Misra and Chrisman, 2012), strategic networks (Arregle et al., 2007), and image concerns (Memili et al., 2010). As another future research avenue, the performance of family versus non-family firms that internationalise can be studied. All these suggest additional avenues for future research concerning family firms' internationalisation.

5.2 Practical implications

Families' involvement appears to be influential on firm strategies and behaviour (i.e., internationalisation), even when the family holds a relatively small percentage of equity rights (which are still higher than those non-controlling minority shareholders) and a small number of a firm's top managers and/or board positions in the US corporations. In our paper, we demonstrate that different family involvement levels and corporate roles result in different outcomes in terms of internationalisation. Interestingly, our results suggest that family ownership, with an inverted U-shape relationship with internationalisation, and family's involvement in management and the board, with a U-shape relationship, can provide important checks and balances to inadequate or excess investments in internationalisation, if properly coordinated. Alternatively, there is a potential for them to work at cross purposes leading to higher transaction (and potentially agency) costs. Therefore, both family and non-family stakeholders should be vigilant concerning the nature of the corporate governance mechanisms used in order to maximise the positive effects of family involvement on shareholder wealth, particularly since family agendas may not always be consistent with overall firm prosperity.

In conclusion, the framework presented in this paper provides a transaction cost perspective to family firms and their strategic decisions concerning internationalisation. We believe that future family business studies within the framework of TCT will result in better understanding of the

formulation of family firms' strategic decisions in many other areas that are beyond the scope of this study.

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